

ABSTRACT

The present invention is to provide a method of constructing a nucleus-implanted egg, a parthenogenetic embryo and a parthenogenetic mammal each having 2 haploid genome sets originating in mammalian ova, and provides methods of constructing a nucleus-implanted egg having a haploid genome set derived from ng ovum and a haploid genome set from fg ovum, a parthenogenetic embryo and a parthenogenetic mammal, which includes the steps of (1) introducing a primitive ovarian follicle egg (ng ovum) into a nucleus-deleted egg in a germinal vesicle stage (GV stage egg) and then developing them to MII phase (second meiosis metaphase) by in vitro maturing and culturing to prepare a first nucleus-implanted egg, and (2) extracting MII phase chromosome from said first nucleus-implanted egg and introducing it into other MII phase egg (fg ovum) to prepare a second nucleus-implanted egg, wherein ovum from which an imprinted gene that undergoes gene modification posteriori during the generation of sperm is deleted is used as the ng ovum or fg ovum.